Rec'd PCT/PTO 12 SEP 2005
REC'D 27 JAN 2005
WIPO PCT

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PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference DE920020021	**FOR FURTHER ACTION**	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/EP 03/11395	International filing date *(day/month/year)* 15.10.2003	Priority date *(day/month/year)* 02.11.2002
International Patent Classification (IPC) or both national classification and IPC G06F17/30		
Applicant INTERNATIONAL BUSINESS MACHINES CORPORATION et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

 ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

 These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☒ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

Date of submission of the demand	Date of completion of this report
25.05.2004	25.01.2005
Name and mailing address of the international preliminary examining authority: European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Sanandrés Ledesma, J Telephone No. +49 89 2399-7569

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/EP 03/11395

I. Basis of the report

1. With regard to the **elements** of the international application *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17))*:

Description, Pages

1-19 as originally filed

Claims, Numbers

1-15, 17-26 as originally filed

Drawings, Sheets

1/14-14/14 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

 (Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

 ☐ the entire international application,

 ☒ claims Nos. 16

 because:

 ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):

 ☐ the description, claims or drawings *(indicate particular elements below)* or said claims Nos. are so unclear that no meaningful opinion could be formed *(specify)*:

 ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

 ☒ no international search report has been established for the said claims Nos. 16

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

 ☐ the written form has not been furnished or does not comply with the Standard.

 ☐ the computer readable form has not been furnished or does not comply with the Standard.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	1-15, 17-26
	No:	Claims	
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1-15, 17-26
Industrial applicability (IA)	Yes:	Claims	1-15, 17-26
	No:	Claims	

2. Citations and explanations

 see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1 Reference is made to the following document:

D1: US 2002/083132 A1 (HOLLAND IAN MICHAEL ET AL) 27 June 2002 (2002-06-27)

D2: BEVIS D AND PATTERSON L: "Extending enterprise applications to mobile users." INTERNET ARTICLE. IBM WEBSPHERE EVERYPLACE ACCESS WHITE PAPER, [Online] July 2002 (2002-07), XP002282228 Retrieved from the Internet: URL:http://www-900.ibm.com/cn/software/web sphere/products/download/whitepapers/PVC_W P.pdf> [retrieved on 2004-05-26]

D3: INTERNATIONAL BUSINESS MACHINES CORPORATION: "Portal cooperative disconnected client" RESEARCH DISCLOSURE, KENNETH MASON PUBLICATIONS, HAMPSHIRE, GB, vol. 461, no. 168, September 2002 (2002-09), XP007131282 ISSN: 0374-4353

2 Novelty

2.1 The subject-matter of claims 1-15, 17-26 appears to satisfy the criteria of novelty, as defined in Article 33(2) PCT.

3 Inventive Step

3.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1-15, 17-26 does not involve an inventive step in the sense of Article 33(3) PCT.

3.2 The document **D1** is regarded as being the closest prior art to the subject-matter of claim 1, and discloses (the references in parentheses applying to this document): a system for dynamically constructing page bundles on demand at a server, and downloading the bundles to a portable client, where the bundles are accessed in a disconnected mode from (see paragraph 3). Said bundles may include executable code such as servlets, which will execute on the portable device to enable dynamic content generation (see paragraph 18). The IPEA is of the opinion that a portal, which is merely a web application composed of several web documents and code, may be processed as a page bundle as described in

D1. Bundles can be transcoded to tailor the bundled software to the user's current working environment (see paragraph 18). A bundle is a file or object comprised of one or more files or objects, which will be transmitted to a the requester as a single unit (see paragraphs 45, 53-58 and Figs 5, 6A, 6B). The IPEA is of the opinion that a bundle is the same as the content topology of the present application. A bundle descriptor specifies not only the pages that the user will, but also any files that are linked to those pages, and this includes executable code such as a servlet that may be invoked during the user's interaction (see paragraph 46). The IPEA is of the opinion that as a portlet is just a kind of servlet, hence also portlets can be included in the bundles. The implementation of the logic for the bundling process that will execute on the server may be integrated with the code of the server application, as one or more modules which are invoked during execution of the server application (see paragraph 43). The logic will be implemented as a separate program, for example as a servlet, which provides services that are accessed by the server application (see paragraph 43). The server side of the implementation may execute on a computer functioning as a Web server, where that Web server provides services in response to requests from a client using a Web browser (see paragraph 43). A bundling server uses a bundle descriptor to construct the page bundle by retrieving the pages and other files identified in the bundle descriptor, and packages them together into a bundle and sends the bundle to the portable client (see paragraph 50 and Fig 4A). A bundle can be adapted or transcoded according to dynamic factors related to the capabilities of the portable client, such as the current memory or storage capacity of the portable client. This transcoding process is part of the bundle generation process and takes place before including each file in the bundle (see paragraph 63). Hence, the system described in D1 provides the functions of the Topology Manager, Dynamic Information Manager and Migration Manager of claim 1.

3.3 D1 does not mention a Synchronization Engine to synchronize the data between server and mobile device. However, the provision of a synchronization engine with this purpose is a commonplace practice in those systems where some data can be used either in a fixed server or in a mobile device. D2 presents a synchronization server in the context of offline browsing for mobile devices (see "Data synchronization" section, page 13 and page 15, last paragraph). D3 presents a Sync Disconnect-Let that conducts a synchronization session between portal disconnected clients and portal servers (see item "Sync Disconnect-Let"). In view of this, the skilled person would regard it a normal design procedure to combine all the features set out in claim 1.

3.4 Therefore, the server system of claim 1 is not considered as involving an inventive (Article 33(3) PCT). The same reasoning applies, mutatis mutandis, to the mobile device claim of 13, the portal server of claim 18, the method of claim 19 and the computer program of claim 26, which therefore are also considered not inventive.

3.5 Dependent claims 2-12, 14-15, 17, 20-25 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step, see document D1 and the corresponding passages cited in the search report.

4 Industrial applicability

4.1 The subject-matter of claims 1-15, 17-26 seems to be industrially applicable, as required by Article 33(4) PCT.